Name KUKARKIN, B. V.

Title Doctor of Physical and Mathematical Sciences.

B. V. KUKARKIN is the author of an article entitled Looking Remarks

dut into Outer Space".

Source : M: Stantsii v Kosmose (Stations in Outer Space), a collection of articles, published by the USSR Academy of Sciences, Moskva, 1960, with foreword by Academicians A. N. Nesmeyanov and A.V. Topchiyev, p. 183.

104 10

RYBNIKOV, K.A., prof., red.; SPASSKIY, B.I., dotsent, red.; GORIEYKV, D.I., prof., red.; IVANENKO, D.D., prof., red.; KUDRYAVTSEV, P.S., prof., red.; KULKOVSKIY, P.G., dotsent, red.; MIKHAYLOV, G.K., Etarshiy nauchnyy sotrudnik, red.; KHRGIAN, A.Kh., prof., red.; SHEVTSOV, N.S., prof., red.; VERKHUNOV, V.M., assistent, red.; KONONKOV, A.F., red.; MALIKOVA, M.A., red.; SOROKINA, L.A., red.; YERMAKOV, M.S., tekhn.red.

[Summaries of papers and reports of the Interuniversity Conference on the History of Physics and Mathematics] Tezisy dokladov 1 soobshchenii Mezhvuzovskoi konferentsii po istorii fiziko-matematicheskikh nsuk. Moskva, Izd-vo Mosk.univ., 1960. 187 p. (MIRA 13:6)

1. Mezhvuzovskaya konferentsiya po istorii fiziko-matematicheskikh nauk, 1960.

(Mathematics--Congresses) (Physics--Congresses)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000827230008-1"

KUKARKIN, B.V.; YEFREMOV, Yu.I.; KHOLOPOV, P.N.

THE PROPERTY OF THE PROPERTY O

[The first supplement to the second edition of the general catalog of variable stars containing information on 796 variables indicated in 1960 and specified information on 1,647 previously indicated variables] Pervoe dopolnenie ko vtoromu izdaniiu obshchego kataloga peremennykh zvezd, sodershashchee svedeniin o 796 peremennykh zvezdakh, oboznachennykh v 1960 g., a takshe utochnonnye avedeniia o 1647 ranee oboznachennykh peremennykh zvezdakh. Moskva. Gos.astronomicheskii institut im. P.K. Shternbergs Mosk.gos.univ.im. M.V. Lomonosova, 1960. 226 p. (MIRA 14:3)

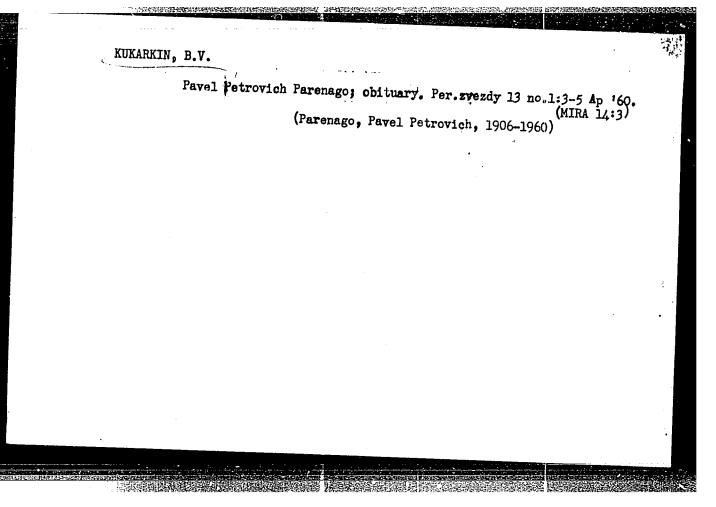
(Stars, Variable -- Catalogs)

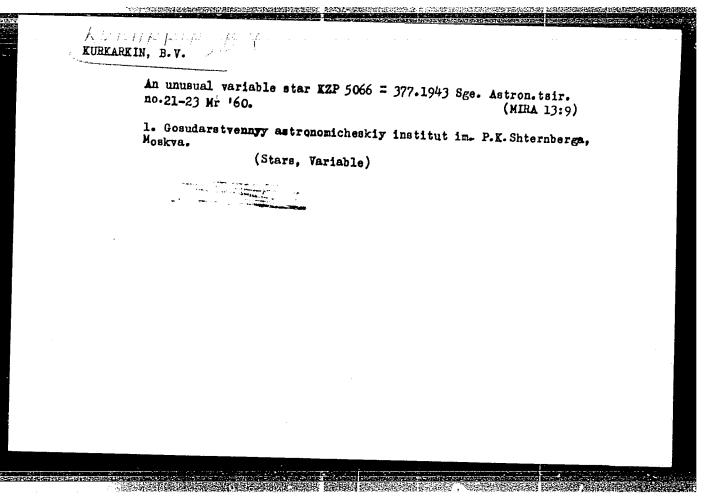
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Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1960, No. 11, p. 28, # 11107

AUTHOR:

Kukarkin B.V.

TITLE:

Remarkable Variable Star KZP 5066 = 377. 1943 Sge

PERIODICAL:

Astron. tsirkulyar, 1960, 30 marta, No. 209, pp. 21-23

TEXT: Richter (RZhAstr, 1960, No. 10, # 9983) noticed that the variable star KZP 5066 slowly and continuously, apart from small irregular fluctuations, varied its luminosity from 12^m to 10^m during the time from 1928 to 1959. The variable was estimated from 51 plates of the Moscow Observatory during the time interval from 1898 to 1959. The luminosity curve is graphically presented. During 60 years, the luminosity of the variable was systematically increasing from 13^m.42 to 10^m.60.

N.P.K.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

KUKARKIN, B.V.

BE Monocerotis. Astron.tsir. no.211:29 My '60. (MIRA 13:10)

1. Gosudarstvennyy astronomicheskiy institut im. Shternberga, Moskva. (Stars, Variable)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000827230008-1"

KUKARKIN, B.V.

Preliminary results of the investigation of variable stars in globular cluster NGC 6171. Astron.tsir. no.216:17-18 D '60.

(MIRA 14:4)

1. Moskva, Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga.

(Stars, Variable)

KUKARKIN, B.V.

Identification of two variable stars in the globular cluster MZ. Astron.tsir. no.216:29 D '60. Astron.tsir. no.216:29 D '60. (MIRA 14:4)

1. Moskva, Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga.

(Stars, Variable)

Some methodological Istastron.issl. n	problema#in no.7:131-146 (Astronomy-	n the histo '61. -H istory)	ry of estr	onomy. MIRA 14:9)	
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KUKARKIN, B.V.; KUKARKINA, N.P.

CLESCERMISSION CONTROL MANERAL

Investigating variable stars in the globular cluster M3-NGC 5272. Per.zvezdy 13 no.4:239-247 Mr 161. (MIRA 15:3)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga i Astronomicheskiy Sovet AN SSSR, Moskva.

(Stars, Variable)

KUKARKINA, N.P.; KUKARKIN, B.V.

Variable stars with a Blazhko effect in the globular cluster M3. Per.zwezdy 13 no.5:309-316 Je '61. (MIRA 15:8)

1. Astronomicheskiy sovet AN SSSR, Moskva. (Stars, Variable)

KUKARKIW, B.V.

Study of variable stars in the globular cluster MGC 6171. Fer. zvezdy 13 no.6:384-399 '61. (NIRA 16:9)

1. Gosudarstvennyy astronomichoskiy institut imeni Shternberge. Moskve. (Stars, Variable)

VCHOB'YEVA, V.A.; KUKARKIN, B.V.

YZ Cancri is a U Geminorum-type variable with the shortest period. Per.zvezdy 13 no.6:428-429 161. (MIRA 16:9)

1. Gosudarstvennyy astronomichaskiy institut imeni Shternke: ga i Odosskaya astronomichaskaya observatori: (Stars, Variable)

New stage in astronomy, Priroda 50 no.5:14 My '61. (MIRA 14:5) (Astronomy) (Astronautics)

KUKARKIN, B.V., prof.

Lomonosov and astronomy. Priroda 50 no.11:38-43 N '61.

(MIRA 14:10)

(Lomonosov, Mikhail Vasil'evich, 1711-1765) (Astronomy)

VORONTSOV_VIL'YAMINOV, Boris Alaksandrovich; KRASNOGORSKAYA, Alisa Arkad'yevna; Prinimali uch#stiye: TSITSIN, F.A.; PONOMAREVA, G.A.; MAKAROV, A.N.; MUKARKIN, B.V., prof., otv.red.; YERMAKOV, M.S., tekhn.red.

[Morphological catalog of galaxies. Part 1. Catalog of 7,200 galaxies with declinations from 90 to 45] Morfologicheskii katalog galaktik. Chast' 1. Katalog 7200 galaktik ot 90 do 45 skloneniia. Moskva, Izd-vo Mosk.univv., 1962.
205 p. (Moscow. Universitet. Gosudarstvennyi astronomicheskii institut. Trudy, vol.32). (MIRA 16:2) (Galaxies—Catalogs)

PEREL', Yuriy Grigor'yevich; <u>KUKARKIN</u>, <u>B.V.</u>, <u>prof.</u>, red.; YERPYLEV, N.P., red.; KRYUCHKOVA, V.N., tekhn. red.

[Development of our concepts about the universe]Razvitie predstavlenii o vselennoi. Izd.2. Pod rod. B.V.Kukarkina. Moskva, Fizmatgiz, 1962. 391 p. (MIRA 15:10) (Cosmogony)

\$/35/62/000/010/001/128 A001/A101

AUTHOR:

Kukarkin, B. V.

TITLE:

Some methodological problems of modern astronomy

PERIODICAL:

Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 3, abstract 10A1 ("Vopr. filosofii", 1962, no. 2, 37 - 45, 183,

English summary)

Investigations of outer space objects make it possible to study the TEXT: motion of matter under extraordinary conditions and extend the possibilities of experimental physics on Earth. Penetration of human beings into outer space enables them to conduct experiments in astronomical investigations, which inaugurate a new era in the history of astronomy. The whole series of discoveries made during the past time in the regions of physics and astronomy make it possible to pass over from speculative cosmogonic hypotheses to cosmogonic theories founded on firmly established facts, which disprove agnostic conclusions of some scientists. At the end, the author dwells on problems of ideological struggle in the field of cosmology.

[Abstracter's note: Complete translation]

I. Novikov

Card 1/1

S/026/62/000/010/001/003 D051/D114

AUTHOR:

Kukarkin, B.V., Professor

TITLE:

The cosmos and astronomy

PERIODICAL:

Priroda, no. 10, 1962, 3-7

TEXT: In this popular article the author explains and justifies the efforts and the material means spent in cosmic research. Contradicting western "anthropocentric" views, he points out the recent achievements in science, and possible future progress by the use of artificial satellites, rockets, etc., and future material advantages expected for the benefit of mankind. A summarizing description of the most important links established by cosmic research between astronomy on the one side, and physics, geophysics and biology on the other, is given. There is 1 figure.

ASSOCIATION: Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga (State Astronomical Institute im. P.K. Shternberg), Moscow

Card 1/1

KUKARKIN, B.V.

Two new variable stars in the vicinity of the globular cluster NGC 6171. Per. zvezdy 14 no.1:21-23 Ja 62. (MIRA 17:3)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga, Moskva.

VORONTSOV-VEL'YAMINOV, Boris Aleksandrovich; AR IPOVA, Vera Petrovna; KUKARKIN, B.V., prof., otv.red.; DOKUCHAYEVA, O.D., red.

[Morphological catalog of galaxies. Pt 3. Catalog of 6740 galaxies from + 15 to - 9 of declination]. Morfologicheskii katalog galaktik. Pt. 3. Katalog 6740 galaktik ot + 15 do - 9 sklonenia.

[Moskva] Izd-vo Mosk. univ. 1963. 260 p. (Moskva. Universitet. Gosudarstvennyi astronomicheskii institut. Trudy, no.33).

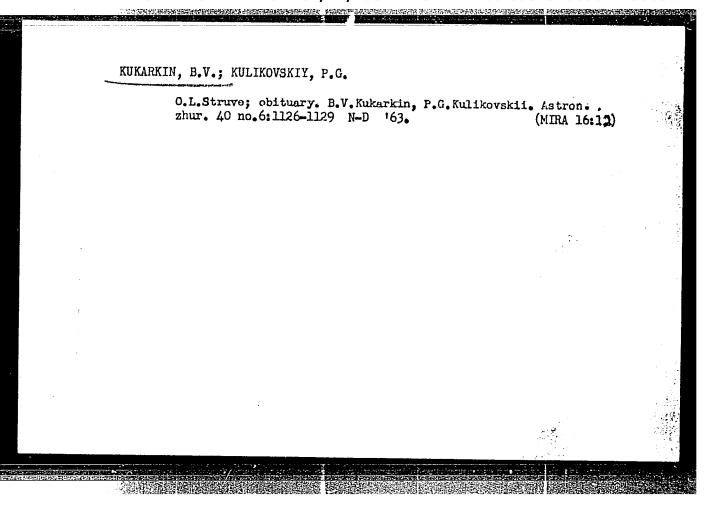
(MIRA 17:4)

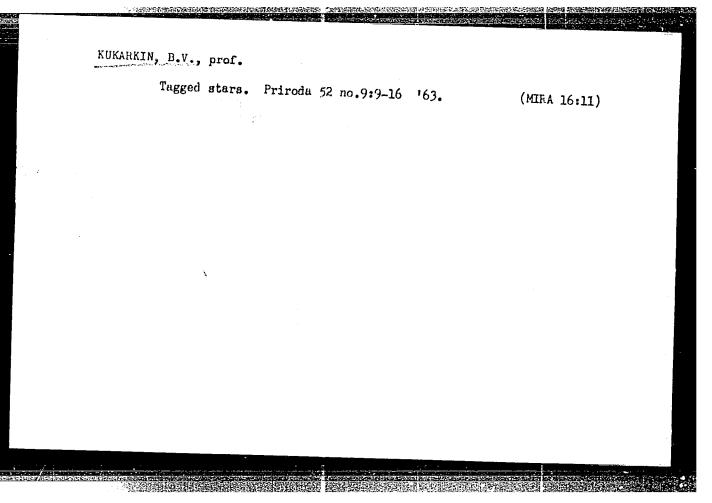
KUKARKIN, B.V., prof.

Symposium on "The galaxy and the Magellanic Clouds". Vest. AN
SSSR 33 no.7:98 Jl '63.

(MIRA 16:8)

(Astronomy--Congresses)





KUKARKIN, B.V., prof.

Group space flight and astronomy. Priroda 53 no. 12:87 '64.

(MIRA 18:1)

KURTCHEIN, H. Ye.; KUKARKIN, B.V. Close W Brage Majoris-type binaries and some problems in the evolution of stars. Astron. zhur. 43 no. 1883-88 Ja.F 165 1. Gorndaratvennyy astronomicheskly institut iment P.K. Shtern-

berga. Sulmitted April 30, 1965.

APPROVED FOR RELEASE: 07/12/2001

CIA-RDP86-00513R000827230008-1"

14(11), 15 AUTHORS: SOV/32-25-1-41/51 Shelyubskiy, V. I., Galaktionov, S. S., Kukarkin, G. A.

TITLE:

Machine for Testing the Bending, and Determining the Young

Modulus of Class (Pribor dlya ispytaniya na izgib i opredeleniya

modulya Yunga stekla)

PERIODICAL:

Zavodskaya Laboratoriya, 1959, Vol 25, Nr 1, pp 114-116 (USSR)

ABSTRACT:

The limit of the bending strength and the Yung modulus of glass are usually tested on metal testing machines (Ref 1) or on simple laboratory apparatus (Ref 2). No equal increase in stress can be adjusted there, which fact decreases the measuring accuracy, as the strength of glass considerably depends on the rate of the increase in stress (Ref 3). An apparatus was constructed which records automatically the magnitude of the destruction stress and makes possible a determination of the maximum deformation. The operation principle of the apparatus (Fig) is that a motor (by way of a worm screw) on a lever of a supporting girder displaces the stress while the other arm

exerts a certain pressure upon the sample from below; thus, the sample is pressed against a support fixed above the sample. The position of this support can be adjusted and the support itself

Card 1/2

SOV/32-25-1-41/51

Machine for Testing the Bending, and Determining the Young Modulus of Glass

is connected with an electric contact which automatically records the stress in the case of the destruction of the sample. The magnitude of the stress is calculated according to the equation (1). The measuring accuracy depends on the

production of the sample and is about 2-3%.

There are 1 figure and 4 references, 3 of which are Soviet.

ASSOCIATION:

Gosudarstvennyy nauchno-issledovatel'skiy institut elektrovakuumnogo stekla (State Scientific Research Institute of

Electro-Vacuum Glass)

Card 2/2

KUKARKIN, F.; RABINOVICH, F.

Prospecting for a railroad right of way. Grashd.av 17 (MIRA 13:6)

(Bailroad engineering)

ISAYEV, N.S.; BELOVA, Ye.I.; KUKARKINA, M.N.; OZHIGANOVA, Z.I.; SHEREMETEVSKAYA, T.A.; YURIN, B.A., red.; KOROBOVA, N.D., tekhm. red.

[Documents of proletarian solidarity; collected documents on the cooperation of Soviet Union workers with the workers of Asia, Africa and Latin America in 1918-1961]Dokumenty proletarskoi solidarnosti; sbornik dokumentov o sodruzhestve trudiashchikhsia Sovetskogo Soiuza s trudiashchimisia stran Azii, Afriki i Latinskoi Ameriki v 1918-1961 godakh. Moskva, Profizdat, 1962. 207 p. (MIRA 15:12)

(Trade unions)

KUKATKIMA, M. P.

Stars, Variable

Long-period Cepheid DF Lacertae. Per. zvezdy 8, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, Nay 1953, Unclassified.

KUKARKINA, N.P.

EM Lacertae, a new variable of the type of W UMa. Per.zvezdy 9 no.1:77-78 S'52. (MLRA 8:10)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga. (Stars, Variable)

KUKARKINA, N.P.

లుకుడుండి భాష్ట్రాగు దిర్విస్తుంది. దీర్విస్త్విస్తుంది.

EO Lacertae, a new variable of the type of 3 Lyrae. Per. zvezdy 9 no.1:78 S'52. (MLRA 8:10)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga.

(Stars, Variable)

- 1. KUKARKINA, N.
- 2. USSR (600)
- 4. Stars, Variable
- 7. Three new eclipsing variables, Astron. tsir., No. 124, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

KUKARKINA, N. P.

"Variable Star BD 60° 2613", Peremennyye Zvezdy, No 6, 1953, pp 407-408

Abs

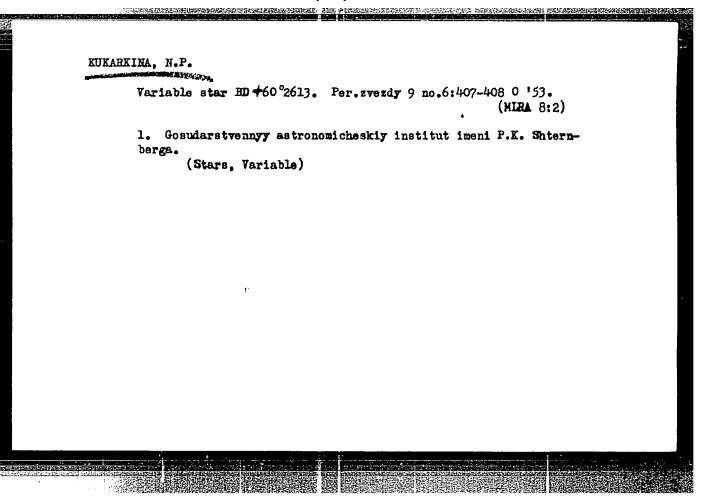
W-31146, 1 Feb 55

KUKARICHA, N. P.

"BV Cassiopeiae" (Astrophysics, Observations of Variables), Peremennyye Zvezdy, No 6, 1953, pp 411-412

Abs
W-31146, 1 Feb 55

KUKARKINA, N. P.	
Astrophysics, Observations of Stars (1665) Peremenbye Zvezdy, Vol 9, No 4, 1953, pp 294-296 KUKARKINA, N. P. "The Eclipsed Variable IR Cassiopeia" Clears up contradictions which previously existed about the variable. that it belongs to type beta stars.	Points out
SO: Referativnyy ZhurnalAstronomiya i Geodeziya, No 1, Jan 54; (W-30785,	23 July 1954.)



EV Cassiopeiae. Per.zvezdy 9 no.6:411-412 0 '53. (MIRA 8:2)

1. Cosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga. (Stars, Variable)

FLORYA, N.F.; KUKARKINA, N.P.

FLORYA, N.F.; KUKARKINA, N.P.

57 long-period Cepheids. Trudy GAISH 23:3-61;302 et seq. '53.

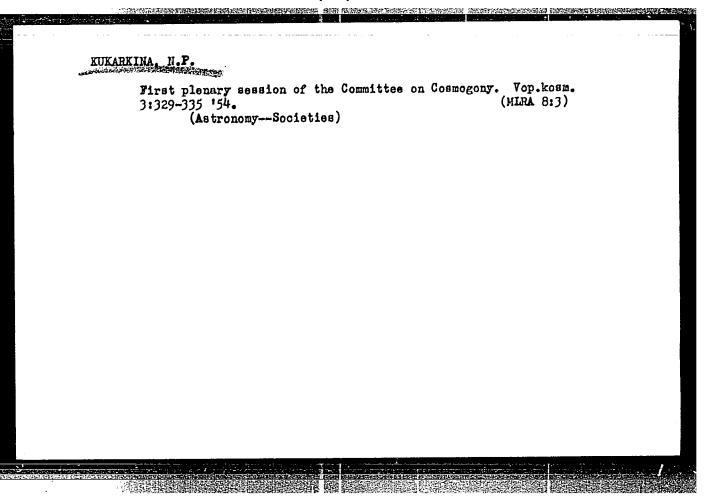
(MLRA 7:5)

(Stars, Variable)

KUKARKIN, B.V.; KUKARKINA, N.P.

SS Lyrae. Astron.tsir. no.137:9-10 Ap '53. (MLRA 6:8)

1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga. (Stars, Variable)



KUKARKINA, N.P.

Using Gertsshprung's method to interpret observations of SU Cassiopeiae. Per.zvezdy 10 no.1:57-59 Ja '54. (MLRA 8:2)

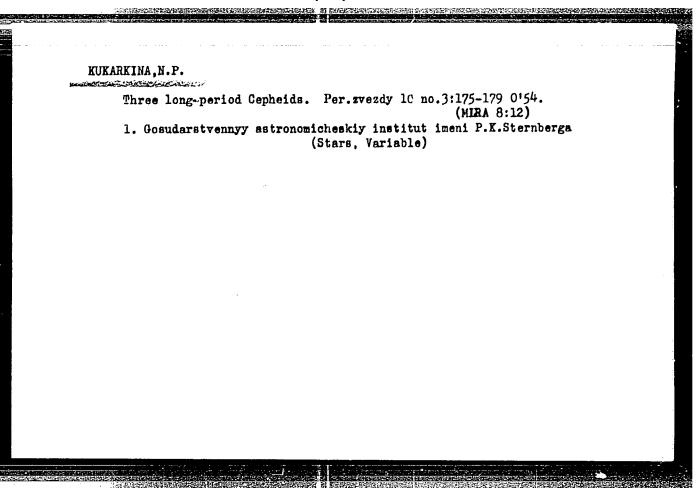
1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga. (Stars, Variable)

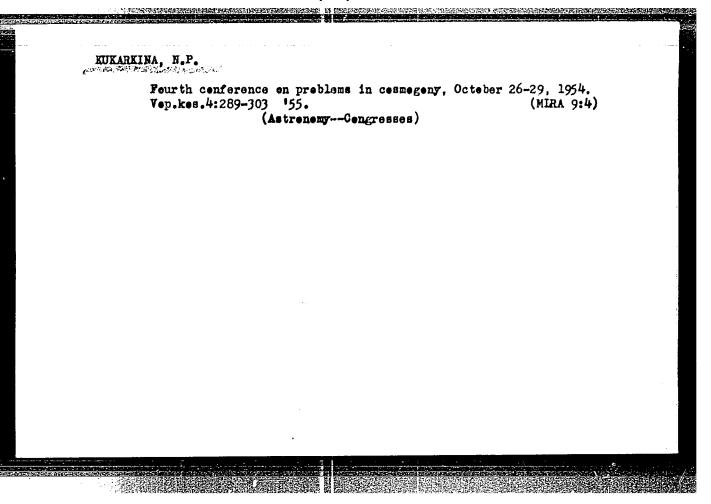
Investigation of the variation in brightness of four Cepheids. Per.zvezd. 10 no.2:92-99 Je '54. (MIRA 8:9) 1. Gosudarstvennyy astronomicheskiy institut imeni P.K.Shternberga. (Stars, Variable)

KUKARKINA, N.P.; PEROVA, N.B.

BW Scuti. Per.zvezd. 10 no.2:129 Je '54. (MIRA 8:9)

1. Gosudarstvennyy astronomicheskiy institut
(Stars, Variable)





KUKARKINA, N.P.

Cepheid RS Orionis. Per.zvezdy 10 no.5:323-325 '55. (MLRA 9:9)

1. Gosudarstvennyy astronomicheskiy institut imeni
P.K. Shternberga Moskva.
(Stars, Variable)

KUKARKINA, N.

A new eclipsing variable. Astron. tsir. no.183:17 Jl '57.

(MIRA 11:3)

1. Gosudarstvennyy astronomicheskiy institut im. P.K. Shternberga,
Noskva.

(Stars, Variable)

KUKARKIN, B.V.; KUKARKINA, N.P.

Investigating variable stars in the globular cluster M3-NGC 5272.

Part 1. Catalog of photographic magnitudes of 81 stars in the outer regions of the cluster. Per.zvezdy 12 no.4:291-292 Je

158. (MIRA 13:4)

1. Gosudarstvennyy astronomicheskiy institut im.P.K.Shternberga. (Stars, Variable)

KUKARKINA, N.P.

Semiregular variable BD + 55°224 Cassiopeiae. Per.zvezdy 12 no.4:314-315 Je '58. (MIRA 13:4)

1. Astronomicheskiy sovet AN SSSR. (Stars, Variable)

80181 s/026/60/000/05/015/068 3(1) 3.1560 D034/D007 Kukarkina, N.P. AUTHOR: The New Hercules Star Discovered in 1960 TITLE: Priroda, 1960, Nr 5, p 62 and insert between pp 62 and 63 PERIODICAL: (USSR) The article supplies some information on the efforts to ABSTRACT: complete knowledge about the new star discovered on 7 March 1960 by the Norwegian amateur-astronomer K. Hassel. It is known that at the observatories of Abastumani (Gruzinskaya SSR), at the Krymskaya astrofizicheskaya observatoriya AN SSSR (Crimean Astrophysical Observatory of the AS USSR), at the Yuzhnaya stantsiya GAISch (Southern Station of GAISch) in Crimea, many spectrograms of the new star could be obtained. Photographs and visual evaluations of the brilliance of the new star were made from 9 March in Vil'nyus, lrkutsk, Kiyev, Moscow, Odessa, Rostov-na-Donu, Sverdlovsk, Tomsk. In the insert a preliminary brilliance curve is given. It became known that prior to its discovery the new dard 1/2

"APPROVED FOR RELEASE: 07/12/2001 CIA

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80181

S/026/60/000/05/015/068 D034/D007

The New Hercules Star Discovered in 1960

star was photographically recorded at the observatory in Kurasiki in Japan. The photographs obtained in Japan show that by the end of February the star was below the tenth order and reached the maximum of brilliancy about 4 March. Photographs made in Moscow towards the end of March show that the brilliance of the star diminishes and towards 27 March reached the order 6.5. There is 1 insert with 2 photographs and 1 graph.

ASSOCIATION: Astrosovet AN SSSR (Astronomical Council of the AS USSR)

Card 2/2

X

The 13th Plemum of the Committee on Variable Stars of the Astronomical Council of the Academy of Sciences of the U.S.S.R. Astron.tsir. no.213:30-31 J1 '60. (MIRA 14:1) 1. Astrosovet AN SSSR. (Stars, Variable—Congresses)

KUKARKIN, B.V.; KUKARKINA, N.P.

Investigating variable stars in the globular cluster M3-MGC 5272. Per.zvezdy 13 no.4:239-247 Mr 161. (MIRA 15:3)

Variable stars with a Blazhko effect in the globular cluster M3.
Per.zwezdy 13 no.5:309-316 Je '61. (MIRA 15:8)

1. Astronomicheskiy sovet AN SSSR, Moskva. (Stars, Variable)

18.5200

75964 **\$0V**/133-59-10-25/39

AUTHORS:

Grebenshchikova, A. Z., Kukarskikh, A.

TITLE:

Aging of Soap Baths for the Oiling of Parkerized Tubes

PERIODICAL:

Stal', 1959, Nr 10, p 932 (USSR)

ABSTRACT:

As a result of investigations the following scaping technique for parkerized tubes was adopted: (1) content of scap in the bath, 4 to 5%; (2) length of scaping, 5 to 10 min; (3) solution temperature, 40 to 50° C; (4) hydrogen ion concentration index: $P_{\rm H}=8$. The scap bath was constantly neutralized by caustic scda solution. Advantages: (1) saving of scap; (2) effectiveness of the solution was prolonged from 10 to 14 days to 4 to 5

months.

ASSOCIATION:

Pervoural'sk New Pipe Plant (Pervoural'skiy novotrubnyy

zavod)

Card 1/1

PLYATSKOVSKIY, O.A., kand.tekhn.nauk; Prinimali uchastiye: OSLON, N.D.;
NODEV, E.O.; DEVYATISIL'NYY, V.I.; SULTINSKIKH, A.N., SHANIN, P.K.;
KUKARSKIKH, V.I.; RAKHNOVETSKIY, L.Y., DUYEV, V.N.

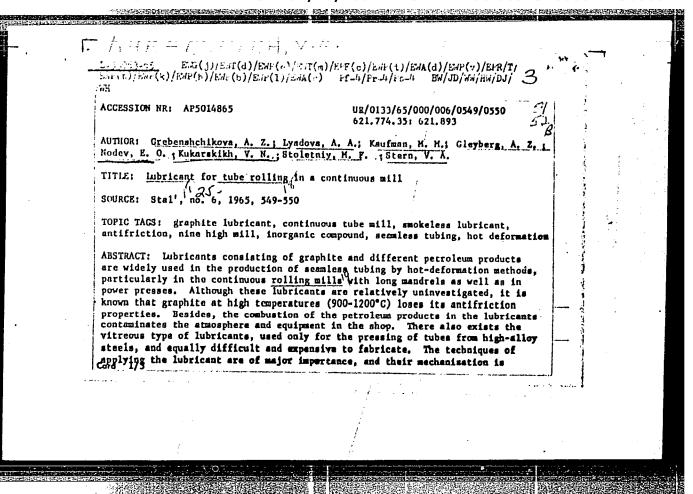
New technological processes used in rolling 102-170 mm. diameter pipes of stainless steel 1Kh18N9T. Biul.nauch.-tekh.inform.VNITI no.4/5:24-30 '58. (MIRA 15:1)

(Pipe mills)

ABSTRACT: Phase transformations of austenite into martensite in lKh15N9S3B stain- less steel during cold deformation has been taken into consideration in developing the technology of hot-and cold-rolled pipes. The martensite point My for the de- formation of this steel lies around 150C and the range of reversal from martensite to austenite is between 500 and 700C. Mass production of thinwalled lKh15N9S3B steel pipe is quite possible if the raw material is free of normetallic impurities (nitrides and carbonitrides). The above steel type (-EP302) differs from 1Kh18N10T by having a 3% lower Cr content substituted by 3% Si. It shows interesting proper-	ACCESSION NR: AP500 AUTHOR: Plyatskovsk date of technical so Lezinskaya, Ye. Ya. (Engineer); Karponke TITLE: Mastering the SOURCE: Stal', no.	ciy, O. A. (Doctor of technical sciences); Yuferov, V. M. (Candicicees); Pavlovskiy, B. G. (Engineer); Vorona, V. M. (Engineer); (Engineer); Vovoina, A. D. (Engineer); Chemerinokaya, R. I. o. V. B. (Engineer); Kukarakikh, V. N. (Engineer) he production of 1Kh15N983B steel pipe
and the second of the second o	ABSTRACT: Phase tr. less steel during continuous of the technology of head formation of this second to austenite is better at the steel pipe is quite	ansformations of austenite into martensite in lkhl5N9S3B stain- old deformation has been taken into consideration in developing out-and cold-rolled pipes. The martensite point MA for the de- teel lies around 150C and the range of reversal from martensite ween 500 and 700C. Mass production of thinwalled lkhl5N9S3B possible if the raw material is free of nonmetallic impurities possible if the raw material type (*RF302) wiffers from 1kh18N1OT
	by having a 3% lowe	

L 30035-65 ACCESSION NR: AP5002974 ties: thus, its ductility changes during hot deformation and the breakdown of unstable austenite into martensite takes place during cold deformation. Tests on the hot rolling of forged 90 mm diameter billets are described in great detail. Great accumulations of nitridos were observed. Cut-out samples were subjected to tensilistrength tests at various temperatures and the content of the ferro-magnetic alpha phase was determined. On the basis of these tests, the following procedure was recommended: first passes of cold rolling are to be done at 150C. Ready pipes are heat treated at 1050-1100C. This steel has a tendency to be hardened considerably by cold working but heat treatment later removes this hardness nearly completely. Despite martensite formation, cold rolling was satisfactory up to 60% deformation. Cold drawing was also satisfactory except for cracks where there was considerable accumulation of nitride impurities. "G. N. Syusin and B. N. Kuznetsov participate in the work." Orig. art. has: 6 figures and 2 tables. ASSOCIATION: VNITI; Novotrubnyy savod ("Novotrubnyy" plant) SUEMITTED: 00 ENCL: 00 SUB CODE: PM NO REF SOV: 000		
Card2/2		

E	I18475-66ENT(d)/ENT(m)/ENA(d)/ENP(b)/ENP(k)/ENP(1)/JD/EN	
	ACC NK. AR6009958 SOURCE CODE: UR/0137/65/000/012/D012/D013	
34.00	AUTHOR: Kaufman, M. M.; Gleyberg, A. Z.; Pinkel'shteyn, Ya. S.; Kuryatnikov, A. V.; Kukarskikh, V. N.; Chemerinskaya, R. I.; Salyuk, L. A.; Pil'nikova, N. N.; Vedyakin,	
-	N. M.; Sultinskikh, A. N.; Kalugin, Ya. P.	
4.	ORG: none	
3	TITLE: Improving the quality of stainless steel pipe	
	SOURCE: Ref. zh. Metallurgiya, Abs. 12Dl01 52	, į
	REF SOURCE: Sb. Proiz-vo svarn. i besshovn. trub. Vyp. 4. M., Metallurgiya, 1965, 51-59	
	TOPIC TAGS: stainless steel, pipe, metal rolling, metal heat treatment, metal inspection, steel/Khl8NlOT steel	
	TRANSLATION: An intensified process is developed for heating metal. Experimental rolling showed that use of this process reduces scrap due to flaws on	
	the interior surface of pipes to at primary inspection. Reducing temperature for metal heating and pipe rolling and increasing feed angle of rolls	
	on the piercing mill (100-100 301) improves pipe quality. Khl8N10T steel with a high concentration of \propto -phase (14-16%) results in an increased rate	_
	of pipe scrap at initial inspection (up to 70%), as well as a high percentage	
	of rejects at final inspection (up to 70%), as well as a high percentage of rejects at final inspection (up to 15%). Therefore this grade of steel with	
	an exphase concentration of more than two points ball cannot be recommended for pipe production. L. Kochenov. [JPRS]	Z
. !	Card 1/1 SUB CODE: 13 UDC: 621.785.1	



٠	L-53983-65	
•	ACCESSION NR: AP5014865	2
	advisable, particularly in the modern automatic continuous tube rolling. Fut the author describes tests of nine selected lubricants, including those recent developed on the basis of inorganic compounds — salts of chloride and phosph (Phosphorus — and chlorine — containing lubricants form phosphides and chlorides on the contact surfaces and the resulting boundary film prevents the interlocking of metals, reducing the friction coefficient.) The effectiveness of the selected lubricants was tested while rolling tubes in the 18 m long mandrel of a continuous nine-high mill with nine individual power drives the lubricants being evaluated and compared according to the load on the motor of the principal stands of the mill (6th to 8th) and the sliding rate of tube from the mandrel. Compared with the graphite fuel oil lubricant 9 and the other seven lubricants tested, lubricant 7 proved to be the most effectiveness. The exact composition of this lubricant is not described, but the author states that it was developed on the basis of "inorganic compounds" and has a density of 1.65 g/cu cm, bulk weight of 0.98 ton/cu m, melting point of 850-900°C, and solubility of 64% in water. This smokeless lubricant displays the bost antificions properties and ensures a normal rolling process. Its components do not properties and ensures a normal rolling	tly ata
	process. Its components do not consist of scarce materials and therefore Cord 2/3	
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ACCI	ESSION NR: AP5014	865				d	
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ASS	OCIATION: nome					<i>!</i>	
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EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(b)/EWP(z)/EWA(c)L 00558-66 MJW/JD/HW ACCESSION NR: AP5019945 UR/0133/65/000/008/0730/073 621.774.35 AUTHORS: Teterin, P. K.; Luzin, Yu. F.; Kats, G. I.; Kaufman, M. M.; Kukarskikh TITLE: Manufacture of stainless steel pipes with low nickel content SOURCE: Stal', no. 8, 1965, 730-734 TOPIC TAGS: stainless steel pipe, stainless steel, steel alloy / EP53 steel, EP54 steel, OKh21N6M2T steel, OKh21N5T steel ABSTRACT: The plastic properties and structure of new low-nickel alloys OKh21N5T (EP53) and OKh21N6M2T (EP54), recommended as substitutes for steels TKh18N9T and 1Kh18N12M2T, were investigated at TsNIIChM; the technology of pipe rolling from these steels was developed and introduced at Novotrubnyy zavod. By hot twisting it was found that plasticity of the steels increased steadily with working temperature (1000-1250C) and rose sharply above 1200C. Thirty specimens were pierced at different temperatures (3 of each steel at 1050, 1100, 1150, 1200, 1250C), and impact strength and microstructure were investigated. It was found that the impact strength at room temperature decreased as piercing temperature increased, Card 1/2

L 00558-66 ACCESSION NR: AP5019945 dropping sharply above 12000 (from 20 and 14 kgm/cm² at 12000 to 14 and 7 kgm/cm at 12500 for EP53 and EP54 respectively) and that the grain size increased above 12000. Thus for satisfactory mechanical and surface properties the working temperature should be kept at \$211500. Comparison of pressure on the rollers and power requirements between these steels and expensive alloys 1Kh18N9T and 1Kh18N12M2T showed these to be 30-40% lower (on the average) for the new alloys. After hot-rolling into 41 x 4.5-mm pipes (at 7° feed, roller speed 2.0 m/sec, wall thickness reduction 32%, drawing coefficient 1.8-1.85, final temperature 950-1000C) the alloy properties were found to be $\sigma_{\rm B} = 70.1$, 63.0 kg/mm²; $\sigma_{\rm 5} = 29.3$, 29.5%; ak = 19.8, 16.1 kgm/cm² for EP53 and EP54 respectively after quenching from 1050C in water. Based on these results, technical parameters were defined for making pipes (ChMTU/UkrMITI No 313-61) and pipe blanks (ChMTU/TsNIIChM No 569-61). After rolling 108 x 5.5 mm and 89 x 4.5 mm pipes under industrial conditions it was found that the best heat treatment consisted of 8-10 minutes at 9700 and quenching in water (for both steels). Orig. art. has: 4 figures and 6 tables. ASSOCIATION: Taniichm (Taniichm); Novotrubnyy zavod (New Pipe Plant) 30 5 ENCL: 00 SUBMITTED: 00 SUB CODE: MM, IE NO REF SOV: OOO OTHER: 000

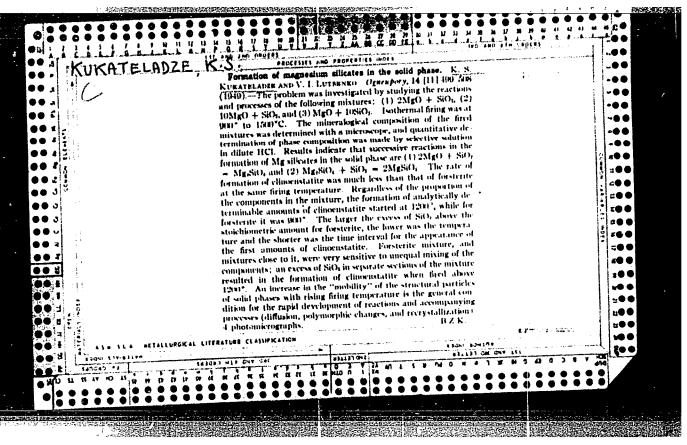
HILLER, Jozsef; KUKASZ, Gyorgy, Dr.

Planning according to value, quantity and time in the German Democratic Republic. Epites szemle 5 no.2:49-53 '61.

XIRARTSEV. A.H., Snzh.; POLESHCHUK, B.I., inzh.; BOLDVREV, F.I., inzh.; VAYDIRKOVA, R.I., Lekknik.

Investigating coal seam breaking by means of a cone wedge in mining the Second Internal. Stor. KuzNIUI no.10:165-176 164.

(MIRA 18:9)



PAVLOV, Yu.V.; KUKATOV, N.I.

Reconstruction of a continuous heating furnace. Metallurg 9 nc.1: 31-32 Ja '64 (MIRA 18:1)

1. Yuvenergometallurgprom i Konstentinovskiy metallurgicheskiy zavod.

KORAVADZE, O. M.; KONIKOTA, A. B.; KRITUMAN, A. G.; CHERLETIC., I. M.; ZANIMAN, O. 18; OTTESEN, B. V.; MEN'SHIKOV, M. I.; COLDIN, L. L.

"Investigation on the Restoration of Dicarboxylic Aminoscids in the Blood, with the Aid of Heavy Carbon C¹³," Dokl. AN SSSR, 66, p. 899-900, 1949.

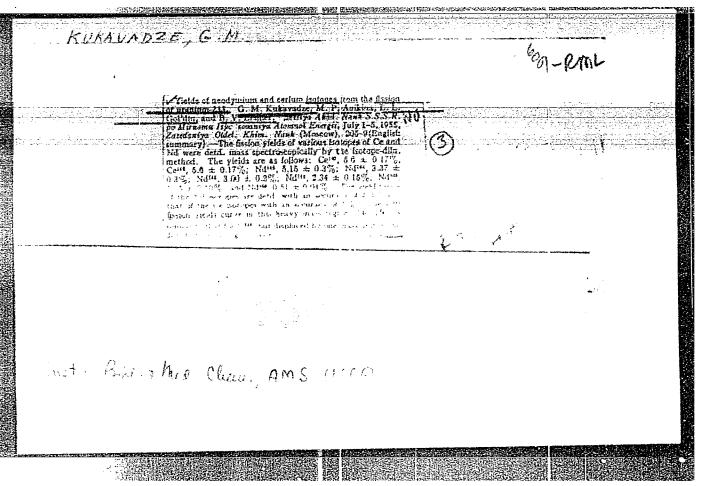
KUKAVADZE, G. M., GOLDIN, L. L., ANIKIMA, H. P. and ERSHIER, B. V.

"Determination of the Absorption Cross-Section and of the Radiation Capture Cross-Section of Uranium - 233 for Pile Neutrons," apaper presented at the Atoms for Peace Conference, Geneva, Switzerland, 1955

[Measurement of the cross sections of the absorption and radiative capture of neutrons in U²³³ and the pile neutron spectrum] Ismerenie secheniia pogloshcheniia i secheniia radiatsionnogo zakhvata urana-233 dlia kotel'nogo spektra neitronov. Moskva, 1955. 13 p.

(Neutrons—Capture) (Mass spectrometry)

(Uranium—Isotopes)



USSR / Isotopes.

B-7

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 26035

Author

: M.Ya. Kats, G.M. Kukavadze, R.L. Scrdyuk

Title

: The Coefficient of Separation of Liquid BCl3 and Its Va-

por by Chlorine Isotopes,

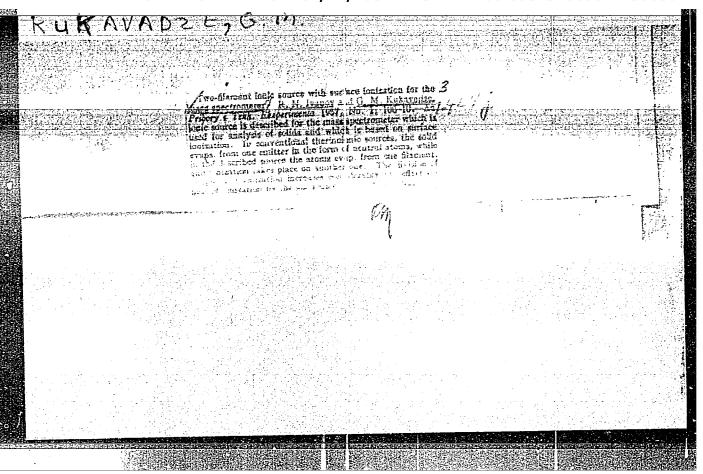
Orig Pub : Zh. tekhn. fiziki, 1956, 26, No 10, 2401 - 2402

Abstract : As the result of BCl3 rectification at 23°, the ratio of isotopes B^{11}/B^{10} was altered from $l_1.13 \pm 0.02$ to 3.60 \pm 0.02, and that of Cl35 / Cl37 from 3.05 \pm 0.02 to 2.9 l_1 ± 0.02. Provided the number of theoretical plates in the column with reference to the isotopes of B and Cl was the same, the separation factor (SF) between the liquid BCl3 and its vapor with reference to the Cl isotopes is equal to 1.001, if the SF with reference to the B isotopes was equal to 1.004. Molecules of Bl1C135 possess the greatest volatility, and those of Bl0C137 possess

the least.

Card

: 1/1



KUKNYHDZE, G.M.

SUBJECT

PERIODICAL

USSR / PHYSICS

CARD 1 / 2

PA - 1830

AUTHOR TITLE

KAC, M. JA., KUKAVADZE, G.M., SERDJUK, R.L. 10 Enrichment of Boron with the Isotope B

Zurn.techn.fis, 26, fasc.12 (2744-2748 (1956)

Issued: 1 / 1957

It was the purpose of this work to work out a plan for a laboratory plant for the winning of boron which is enriched with B¹⁰. This problem was solved by the rectification of BCl3. At first the plant is described. From the data mentioned it

may be seen that 1. The time in which isotopic equilibrium is established amounts to less than 20 hours. 2. With the isotopic equilibrium established between the liquid BCl₃ and its vapor the concentration of the gas (B¹¹) surpasses that of the

liquid. 3. On the occasion of the rectification of BCl3 the distribution coeffi-

 $\alpha = 1.0043$ at 23° C. In the same plant the attempt was made to obtain a certain quantity of BCl₃ which was enriched with B¹⁰. Measuring results obtained for the ratio of $\frac{B11}{-10}$ concentrations in 21 successive cases of contains.

gether in a table. The analysis of all measurements showed that the entire enrichment diminishes somewhat in the course of time. Measurements of the isotopic composition of chlorine showed in the various samples that the distribution coefficient with respect to chlorine isotopes between BCl, and its vapor is less

Zurn.techn.fis, 26, fasc.12 2744-2748 (1956) CARD 2 / 2 PA - 1830 than 1.001. The isotope analysis of BCl₃ was carried out in a mass spectrometer. According to works by SJUTCE, OSBERGHAUS, and THODE, MACNAMARA, LOSSING, and CALLINS, as well as the unpublished works by the authors the measuring results with respect to the ratio: $\frac{B^{11}}{B^{10}}$ for the "initial" product apparently in every concrete case depend on the place where boron was found. Besides it depends on the method of winning the respective boron compound and fluctuations between $\frac{B^{11}}{B^{10}}$ and 4.10 - 4.46. The difference of this ratio for various boron compounds is ten times the amount of measuring errors.

INSTITUTION:

KUKAVADZE, C.M.

AUTHORS:

Gorshkov, V.K., Ivanov, R.N., Kukayadze, G.M.,

89-7-2/32

Reformatskiy, I.A.

TITLE:

The Yield of Fission Products of U^{235} Within the Domain of Rare Earths (Vykhod produktov deleniya U^{235} v redkozemel noy oblasti)

PERIODICAL:

Atomnaya Energiya, 1957, Vol. 3, Nr 7, pp. 11-14 (USSR)

ABSTRACT:

The present paper describes the measuring of these yields by means of the integral mass-spectrographic method, with the help of which the relative share (in %) of several elements contained in the sample can be determined simultaneously during the experiment. This method permits the mass-spectroscopical measuring of the yields on La139, Pr141, Pm147 and Pm149. Working out this method and measuring took place on a mass spectrograph with a resolving capacity of 1: 800. First, the production of the samples is discussed. The uranium preparation enriched somewhat with U235 was here irradiated with thermal neutrons in a reactor. The final results of these mass-spectrographic measurings are shown in a table and are compared with some data given in publications.

Lanthanum, praeseodymium, promethium, samarium: The increased yield of La139 can hardly be explained by meann of the hitherto existing

Card 1/3

The Yield of Fission Products of U²³⁵ Within the Domain of Rare Earths

89-7-2/32

theoretical investigations concerning the course of the curve of the yields. The peak "composed" from Pm¹⁴⁷ and Sm¹⁴⁷ was separated on the basis of the difference between the sublimation temperatures of samarium and promethium. According to various details given concerning the above mentioned elements the authors compute the cross section of the absorption of neutrons for Pm¹⁴⁷ and find:

section of the absorption of and the section of the absorption of the section of the absorption of the section of the section of the section of the section of the masses M₁₄₀/M₁₄₂ = 1,082 ± 0,029. The lack of noticeable amounts of Ce¹⁴⁴ is explained by their decay in Nd¹⁴⁴. Samarium: For the lower limit of the absorption cross section of Sm¹⁴⁹ for thermal neutrons the value 58 COC ± 9000 barn is found. The following composition of isotopes for samarium was found by the authors (in %):

Card 2/3

The Yield of Fission Products of U²³⁵ Within the Domain of Rare Earths

89-7-2/32

 Sm^{146} : 40 ± 3 ; Sm^{148} : 15 ± 2 ; Sm^{150} : 38 + 3; Sm^{152} : 7 ± 2 . There are 1 figure, 3 tables, and 6 references, 3 of which are Slavic.

SUBMITTED:

January 12, 1957

AVAILABLE:

Library of Congress

Card 3/3

1. Uranium isotopes (Radioactive)-Fission 2. Rare earths-Mass spectra 3. Lanthanum isotopes (Radioactive)-Determination 4. Praesecdymium isotopes (Radioactive)-Determination 5. Promethium isotopes (Radioactive)-Determination 6. Samarium isotopes (Radioactive)-Determination 7. Neodym isotopes

(Radioactive) - Determination

KUKAVADZE, Q. M.

Ivanov, R. N., Gorshkov, V. K., Anikina, M. P., 89-12-11/29 LUTHORS:

Kukavadze, G. M., Ershler, B. V.

Fission Yields of Several Heavy Fission Products of U233 (Vykhody nekotorykh tyazhelykh oskolkov pri delenii U233)

Atomnaya Energiya, 1957, Vol. 3, Nr 12, pp. 546-547 (USSR) PERIODICAL:

The absolute fission yields were determined by means of the isotope dilution method (1) and of the mass spectrographically obtained integral concentrations (2). The sample of U²33 was ABSTRACT:

irradiated for two months in a resctor. The following yields in % were measured:

Card 1/3

TITLE:

Wission Yields	of Several	Heavy Fission Prod	lucts of U ²³³	8912-11/29
	Absolute Yield according to Isotope Method 1		Method 2	
	Cs 133 Cs 137 Cs 140 Ce 142 Ce 143 Nd 144 Nd 145 Nd 146 Nd 148 Nd 150 Nd 149 Sm 151+152 Sm 151	5,2 ± 0,3 5,8 ± 0,3 5,45± 0,50 5,5 ± 0,5 5,0 ± 0,3 3,8 ± 0,4 2,82± 0,25 2,20± 0,15 1,03± 0,10 0,51± 0,08 0,66± 0.13 0,60± 0,14	5,50 ± 0,13 6,16 ± 0,14 6,16 ± 0,24 6,06 ± 0,24 5,19 ± 0,17 3,84 ± 0,15 2,88 ± 0,08 2,24 ± 0,07 1,07 ± 0,04 0,49 ± 0,02 0,70 ± 0,03 	
Card 2/3				

Fission Yields of Several Heavy Fission Products of U²33 89-12-11/29

The Xe 135 -absorption coefficient was obtermined at

 $(3,2 \pm 1,0)$. 10^6 b. (There are 1 table, 1 figure and 8 references, 5 of which are Slavic).

SUBMITTED:

May 20, 1957

AVAILABLE:

Library of Congress

Card 3/3

MURIN, A. N., ERSHER, B. V., KUKAWADZE, G. M., ANIKINA, M. P., CORSHKOV, V. K., IVANOV, R. N., KRIZANSKIY, L. M. and REFORMATSKIY, I. A.

"Mass-Spectrometric Study of U²³³, U²³⁵ and Pu²³⁹ Fission Products."

paper to be presented at 2nd UN Intl. Conf. on the peaceful uses of Atomic Energy, Geneva, 1 - 13 Sep 58.

KURAVADZZ, G.M.

Anikina, M. F., Ivanov, R. N., AUTHORS:

89-2-22/35

Hukavadze, G. H., Ershler, B. V.,

The Half-Life of Sr^{90} and Its Fission Yield from U^{233} (Period poluraspada Sr^{90} i vykhod ego pri delenii U^{233}). TITLE:

Nr 2, pp. 198-198 (USSR) PERIODICAL: Atomnaya Energiya, 1958,

According to the usual method the half-life of Gr90 was ABSTRACT:

determined to be 29,3 \pm 1,6 a. The yields of Sr90 and Sr88 fn the $U^{2,3}(n,f)$ reaction were de-

termined to be 5.3 \pm 0.3 % for Sr88 and 5.8 \pm 0.4 % for Sr90. The yield for Sr90 given in reference 7 must be calculated a new, as the half-life period of 19,9 a was still used there. When the newly determined half-life period is used, the yield in this case amounts to $6.3 \pm 0.3 \%$. There are 1 table and 7

references, 4 of which are Slavic.

September 18, 1957 SUBLITTED:

AVAILABLE: Library of Congress

1. Half life-Measurement 2. Strontium 90-Half life-Measurement Card 1/1

CIA-RDP86-00513R000827230008-1" APPROVED FOR RELEASE: 07/12/2001

AUTHOR:

Kukavadze, G.

SOV/89-5-4-19/24

TITLE

The Dresden Molecular Mass Spectrograph (Drezdenskiy

molekulyarnyy mass-spektrograf)

PERIODICAL:

Atomnaya energiya, 1958, Vol 5, Nr 4, pp 476-476 (USSR)

ABSTRACT:

At a conference of the German Physical Society held at Dresden on April 27, 1958, Professor Manfred von Ardenne spoke about a mass spectrograph developed by himself, which contains, as an innovation, an ion source with electron capture. In this source the possibility of a decay of complicated molecules into less complicated molecules or atoms is excluded. This is attained by a constriction of the plasma in a low-voltage discharge.

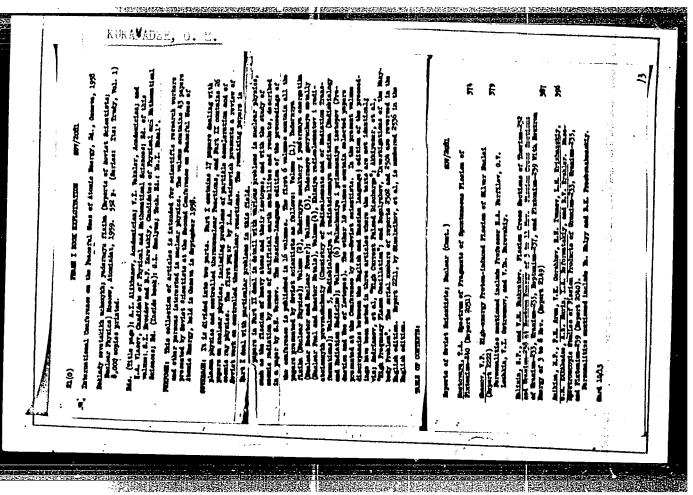
The new device makes it possible to investigate organic molecules and macromolecules, which will be of importance for the chemistry of mineral oils and polymers.

Card 1/1

CIA-RDP86-00513R000827230008-1" **APPROVED FOR RELEASE: 07/12/2001**

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CIA-RDP86-00513R000827230008-1



5(4) 28(5) AUTHOR:

Kukavadze, G. M.

SUV/76-33-6-42/44

TITLE:

Pasel Day Possibilities of Mass Spectrum Analysis of Solid Substances (Sovremennyye vozmozhnosti mass-spektral nogo analiza tverdykh veshchestv)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 53, Nr 6, pp 1434 - 1437 (USSR)

ABSTRACT:

As the determination of impurities in materials used for the manufacture of semiconductors is gaining in importance, the present paper deals with the corresponding applicability of mass spectroscopic analysis. The different working methods are compared with their measuring sensitivity. The methods of the "vacuum spark", of the "high-temperature ray source" and of the "bifilar thermoion ray source" are explained, and it is stated, among other things, that some drawbacks of the first-mentioned method are eliminated by carrying out a bombardment of the sample with ions (Refs 4,6,7), which (in contrast to the electron irradiation) considerably intensifies the emission of secondary ions. An advantage of the second-mentioned method (Ref 9) lies in the circumstance that the percentage content of some elements

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Present Day Possibilities of Mass Spectrum Analysis of Solid Sov/76-35-6-42/44 Substances

in the sample can be simultaneously determined (Ref. 10); but the method can only be applied to certain elements. For the analysis by the first-mentioned method, some milligrams of the sample are required, by the second-mentioned only some tenth or hundredth parts of a milligram, and by the last-mentioned method, only some micrograms or even less. Subsequent to the above-mentioned methods, the method of lastepic dilution (Refs 4,12), which was first applied in biclogy under the term of "method of the inner standard" (Ref. 13), is explained, and it is stated that this method is more sensitive than the 3 above-mentioned methods. There are 15 references, 6 of which are Soviet.

SUBMITTED: August 6, 1958

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S/081/62/000/006/009/117 B166/B101

AUTHORS:

Agafonov, I. L., Kukavadze, G. M., Borisov, G. K., Orlov, V.

Yu.

TITLE:

Mass spectra of monosilane and monogermane

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 6, 1962, 16, abstract 6B76 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 2, 1961,

227 - 229)

TEXT: The mass spectrum of monosilane SiH₄ was taken and calculated for the monoisotopic spectrum. The intensities of the ion currents of SiH₄⁺, SiH₅⁺, SiH₂⁺, SiH⁺, and Si⁺ are in the ratio of 0.4: 73.5: 100: 26.5:25.8 (for the MC-4(MS-4) instrument). Using these data as well as data on the monoisotopic mass spectra of CH₄ and GeH₄ as a basis the authors confirm the rule that there is an increase in the probability of dissociation with an increase in mass of the molecule. It is concluded that the law according to which ions obtained when an odd number of hydrogen ratoms is lost are Card 1/2

Mass spec	tra of monosil	ane and monogermane	S/081/6 B166/B	S/081/62/000/006/009/117 B166/B101		
formed in a relatively large quantity during dissociation cannot be extended to the aforesaid compounds (CH ₄ , SiH ₄ , and GeH ₄). Abstracter's note:						
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S/120/61/000/001/061/062 E032/E114

AUTHORS:

Kukayadze, G.M., Ivanov, R.N., and Zhuravleva, V.G.

TITLE:

Production of Films of High Melting Point Materials

in Vacuum

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.1, p 195

One of the methods of producing thin films of high TEXT: melting point materials is by condensing the vapours of these materials, produced by electron bombardment of solid specimens in vacuum. The present authors have used one of the possible versions of this method to obtain pure deposits of cobalt, iridium and The principle of the method is illustrated in Fig.1. The metal to be evaporated 1, which is in the form of a rod in the case of cobalt, a wire in the case of iridium and a strip in the case of rhodium, is inserted into the ceramic holder 3 and A voltage of +2.5-3 kV is is heated by the tungsten spiral 2. applied to the specimen 1 through the lead 4. The spiral is earthed and carries a current of 4 to 4.5 A. The spiral consists of 2.5 turns and is made of a wire 0.2 mm in diameter. emission current from the spiral is 15-20 mA and the electrons from Card 1/2

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S/120/61/000/001/061/062 E032/E114

Production of Films of High Melting Point Materials in Vacuum the spiral bombard the metal, raising it to a high temperature. In the case of cobalt, a drop of the metal is kept by surface tension forces at the end of the ceramic tube. The cobalt does not interact with the ceramic and the evaporation occurs from the surface of the drop. In the case of evaporation of iridium and rhodium the end of the wire or strip melts, and the resulting liquid drop serves as the source of vapour. The method has been used to produce pure cobalt films 0.15-0.4µ thick, having well-defined magnetic properties when deposited on glass slides 140 x 110 x 30 mm³. Iridium and rhodium deposits about 0.1µ thick have also been obtained on mass-spectrometer ion-source elements. There are 1 figure and 3 Soviet references.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki

AN SSSR

(Institute of Theoretical and Experimental Physics,

Card 2/3 AS USSR)

SUBMITTED: December 29, 1959

· KUKATADZE, G. M.

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S/120/62/000/004/034/047 E140/E420

AUTHORS:

Talyzin, A.N., Gol'din, L.L., Trokhachev, G.V., Radkevich, I.A., Mozalevskiy, I.A., Sokolovskiy, V.V., Kukavadze, G.M., Belozerova, L.A., Borisov, V.S., Bysheva, G.K., Veselov, M.D., Goryachev, Yu.M.

TITLE:

Investigation and correction of the magnetic characteristics of the proton synchrotron C-blocks at

small fields

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 184-192

TEXT: Comparative measurements are made on the C-blocks in the residual field (~35 0c) the injection field (87 0c) and the field at the beginning of the acceleration cycle (117 0c). The iron for the magnet blocks was not pre-selected. This had no substantial effect on differences in the dynamic characteristics of the C-blocks, but the differences in residual field constituted 4.25% on the average and reached up to 10%. The mean-square deviation of the magnetic induction was 4.25%, and 1.4% in the injection field, thus exceeding by far the allowable tolerances. The variations were compensated by shunt resistances Card 1/2

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5/120/62/000/004/034/047 E140/E420

Investigation and correction ...

The present article is and by changing the order of the blocks. concerned with the measurement of the magnetic field intensity and its gradient in the residual field, the compensation by resistances connected across compensation windings, compensation of C-blocks at injection, with investigation of the dynamic characteristics. The equilibrium orbit in the synchrotron has not yet been studied in detail but it is found that either as a result of these corrections or the arrangement of the blocks, the loss of particles is fairly small. There are 7 figures and l table.

ASSOCIATIONS: Institut teoreticheskoy i eksperimental noy fiziki GKAE (Institute of Theoretical and Experimental

Physics GKAE) Nauchno-isslodovatel'skiy institut elektrofizicheskoy apparatury GKAE (Scientific Rossarch Institute

for Electrophysical Apparatus GKAE)

SUBMITTED:

March 31, 1962

Card 2/2

ACCESSION NR: AP4036526

AUTHOR: Memelova, L. Ya.; Kukavadze, G. M.; Ershler, B. V.

TITLE: Mass spectrometric determination of very small amounts of boron in certain materials

SOURCE: Atomnaya energiya, v. 16, no. 5, 1964, 423-426

TOPIC TAGS: boron determination, boron mass spectrometry, isotopic dilution method, analytical chemistry, boron, mass spectrometry

ABSTRACT: The method of isotopic dilution suggested by G. Morrison and R. Rupp (Analyt. Chem. 6, (1977), 892) was used for the determination of small amounts of boron of the order of 10-7 gm in glass, quartz, and silicon. The sample was dissolved (or fused) in sodium hydroxide, internal standard was added which consisted of a known amount of an almost pure boron isotope (e.i. 8-10), borax was then separated electrolitically, and placed on the filement of the mass spectrometer. The purpose of the pure isotope addition is to render hamless the boron losses during the chemical manipulations, as the determination depends only on the ratio of the spectrometric maxima of Na₂B-10₂ to Na₂B-10₂ and the comparison with the